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Titolo	Advanced Decision Making for HVAC Engineers : Creating Energy Efficient Smart Buildings // by Javad Khazaii
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ISBN	3-319-33328-3
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XVII, 191 p. 40 illus. in color.)
Disciplina	658.26
Soggetti	Energy consumption Building construction Energy systems Operations research Decision making Energy Efficiency Building Physics, HVAC Energy Systems Operations Research/Decision Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Heat Transfer in a Nutshell -- Load Calculation and Energy Modeling -- Data Centers -- Healthcare Facilities -- Laboratories -- Cleanrooms -- Commercial Kitchens and Dining Facilities -- Introduction -- Analytical Hierarchy Process -- Genetic Algorithm Optimization -- Pareto Base Optimization -- Decision making under uncertainty -- Agent Based Modeling -- Artificial Neural Network -- Fuzzy Logic -- Game Theory -- Buildings of the Future.
Sommario/riassunto	This book focuses on some of the most energy-consuming HVAC systems; illuminating huge opportunities for energy savings in buildings that operate with these systems. The main discussion is on, cutting-edge decision making approaches, and algorithms in: decision making under uncertainty, genetic algorithms, fuzzy logic, artificial neural networks, agent based modeling, and game theory. These

methods are applied to HVAC systems, in order to help designers select the best options among the many available pathways for designing and the building of HVAC systems and applications. The discussion further evolves to depict how the buildings of the future can incorporate these advanced decision-making algorithms to become autonomous and truly 'smart'.

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